Reducing the Rubbish

Dear Presenter,

This activity is 30 minute presentation and HANDS-ON activity with approximately 25 ten year olds. Please read through the instructions and perform the activity on your own BEFORE you attempt to lead the activity during the water festival.

As each new group of students arrive, introduce yourself. If you need assistance from the teacher, let him/her know. If you do not ask for assistance, the teacher will assume that YOU are the expert and they are the observer. Plan when you will ask the teacher for assistance. Do not hesitate to call the teacher by name and get him/her involved.

As each session begins, introduce yourself to the students. "Good morning, my name is.....and I work for.., I am a ....., or simply I am happy to be here today." Then introduce the topic of the presentation. Each step of this presentation is explained in this packet. These are recommended guidelines and do not have to be followed exactly word for word. Feel free to personalize the presentation to suit you.

Thank you for volunteering to present "Reducing the Rubbish". Have fun, enjoy yourself and we hope you will consider volunteering again next year.

Big Sioux Water Festival

MATERIALS LIST

(FOR 6 SESSIONs WITH 25 STUDENTS PER SESSION)

CONSUMABLES

- 150 student handouts – "Case of the Broken Loop"
- 150 student handouts – "The Recycling of Plastics"
- Newspaper for origami project

NON-CONSUMABLES

- 5 bags filled with items (one for each station)
- 5 x 5 signs (Reuse, Recycle, Compost, Hazardous Waste, & Landfill)
- Garbage Game Key
- Reuse example pictures

AREA REQUIREMENTS

- 5 stations
- One table in front of room

PRE-PREPARATION

Pre-preparation can include any or all of the following

- Check supplies against supply list
- Review background material from presenter packet

PREPARATION

Approximately 30 minutes to set up

This activity is a hands-on activity. To best explain and supervise this activity you must go through the directions on your own BEFORE the actual presentation

Before you begin: Don't be afraid to ask the teacher and chaperones to supervise at each station.

Background Information

(Background information is provided as a basic overview with both general and specific information. Please share this information with the students.)

Procedure:

Each session is 30 minutes. Spend about 5-10 minutes introducing the topic to the kids and explaining the activity. Spend 15-20 minutes with the hands on activity and with questions/answers. Wrap up the last 5 minutes. The kids are 4th graders and they love to answer questions, as well as ask them.

Part I

Ask the students what they remember throwing in the garbage yesterday? Make a list of what they threw away the board.

Why did you throw that stuff away?
Do you think it could have had some other use?

Everyone throws away garbage every day. On average, each one of us produces 4.4 pounds of solid waste each day. This adds up to almost a ton of trash per person, per year. Did you know Americans toss out enough paper and plastic cups, forks and spoons every year to circle the equator 300 times!

Do you know where our trash goes when we throw it away?

How do you think we can create LESS trash?

- Buy fewer things – REDUCE
- Buy items that can be recycled – and RECYCLE them!
- Donate items you don't use or need anymore – someone else can REUSE them

Part II

Explain to the students that they will be doing an activity that involves separating everyday items that get tossed in the trash. These are items they might see at their very own home! A few of the items are represented as a picture because we couldn't have the actual item in the bag. They will need to separate each of the items into one of 5 categories – Reuse, Recycle, Compost, Hazardous Waste, and Landfill. Each group will need to work together to separate the items and put them next to the appropriate sign.

Let them know that you are not going to explain the definition of each category – they need to try to figure out amongst their group, what should go where. (This should inspire a lot of conversations about what items belong in which categories…e.g. some things could be reused, recycled or composted. Others just need to be landfilled).

Have the students number off from 1 to 5. Have them go to their respective stations. They will have about 7-10 minutes to complete the activity.

Part III

Have **GROUP 1** tell the rest of the class what they put into their recycle pile. Ask if everyone agrees with their choices. Ask if anyone noticed the numbers in the center of the recycle symbols on the plastic containers. At this point you could explain the recyclable plastics are numbered 1 through 7.

Ask if someone can tell you what "recycle" means.

RECYCLE: a process that converts an item into a new product. Newspaper, white paper and cardboard can be recycled into new paper products. Glass, metal and plastic items can be recycled into new containers and other products, like steel bridges and cars.

Does anyone recycle at home? Raise your hands if you recycle at home. Good!

Does anyone recycle at school? Raise your hands if you recycle at school.
Great! We have lots of recyclers in here today!

Ask the class to name three reasons why recycling is good for the environment.

1. Recycling saves natural resources
2. saves energy
3. saves landfill space
4. keeps our environment clean

Recycle Facts:
Only 1 out of 4 plastic drink bottles gets recycled. It takes 24 gallons of water to make 1 pound of plastic!

Does anyone know the only two materials that can be remade into the same products over and over again – infinitely? Answer: Glass and Steel

Recycling aluminum cans and paper causes significantly less water pollution than the manufacturing of products from raw materials (ore and trees).

Have **GROUP 2** tell the rest of the class what they put into their "hazardous waste" pile. Ask if everyone agrees with their choices. Ask if someone can tell you what "hazardous waste" means.

*HAZARDOUS WASTE***:** garbage that can threaten the environment and be harmful to living things.

Recycling left over paint and used motor oil and keeping it from going down drains helps to keep our waterways clean.

Have **GROUP 3** tell the rest of the class what they put into their "compost" pile. Ask if everyone agrees with their choices. Ask if someone can tell you what is "compost"?

COMPOST: is decayed organic (something that was living) materials typically used to fertilize gardens. Composting can reduce your garbage by almost half. Items that can be composted include fruit and vegetable scraps, leaves, grass clippings, weeds, garden debris, and non-recyclable paper products (paper towels, napkins, plates, coffee filters, tea bags, tissue, waxed paper).

Have **GROUP 4** tell the rest of the class what they put into their "landfill" pile. Ask if everyone agrees with their choices. Ask if someone can tell you what a "landfill" is.

LANDFILL: aka garbage dump, a place where solid waste is dumped and then buried with soil

How can we keep things from the landfill? Has anyone heard of the 3 R's?
That's right, by reducing the amount of trash we create, reusing items, and recycling, we can keep the landfills from filling up

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Have **GROUP 5** tell the rest of the class what they put into their "reuse" pile. Ask if everyone agrees with their choices. Ask if someone can tell you what "reuse" means.

REUSE: We can cut down on the amount of trash we throw away by reusing items instead. Examples of reuse include donating unneeded clothing, toys, or household items to charities or swap shops, repairing broken items, and reusing items like shopping bags, boxes, containers and aluminum foil.

How can we "reuse" this magazine? You can give it to a friend to read. You can use it in an art project.

Who is wearing a cotton T-shirt? Did you know that took 50 gallons of water to make?

Which pile has the least amount of items? Which pile had the most items?

About 75% of solid waste can be recycled - - though only about 30% actually is.

Part IV

Have everyone put all their items back into their bags.

There is another method to cutting down on what we throw away, it's called reducing.

REDUCE: We can cut down on the amount of trash that we throw away by not creating it in the first place. Ways to reduce waste include avoiding disposable and over-packaged products, buying reusable products.

Ask the kids "instead of using (Paper Cups), what could we use instead to help reduce waste?"

Instead of Using This:	We Could Use This:
Paper Cups	Reusable Cups
Paper Towels	Cloth Towels, Sponges and Rags
Paper Napkins	Cloth Napkins
Plastic Bottles	Bottles made from Metal or Glass
Grocery Bags	Reusable Cloth Bags
Writing Paper	Reuse Other Side
Sandwich Bags	Reusable Containers
Magazines/Newspapers/Books	Read online/checkout from library

Lastly – have the kids make an origami recycle bin or an origami seedling pot and give them the handouts to take home.

SET UP FOR NEXT SESSION

FINAL CLEAN UP

Approximately 30 minutes

- Replace all instructions in folder
- Place all materials and unused student handouts back in storage container